

REMARKS

Claims 1-19 are now pending in the application. Claims 3, 8, 11, and 19 have been amended. Bases for the amendments can be found throughout the application, drawings and claims as originally filed and, as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

DRAWINGS

The undersigned gratefully acknowledges the Examiner's acceptance of the drawings filed with this application on August 27, 2003.

CLAIM AMENDMENTS

Minor non-narrowing amendments have been made to Claims 3, 8, 11, and 19 to correct various informalities.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 6-8, 10, 11-14, and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Chenault (U.S. Pat. No. 4,253,895; hereinafter "Chenault"). This rejection is respectfully traversed.

Applicants note that Chenault appears to disclose a method for forming a segmented mirror. The Chenault reference employs a vacuum mold (30) having a curved surface (31) onto which the film covered glass surface of a mirror segment (10) is placed (see, e.g., column 2, lines 30-42). Due to the construction of the vacuum

mold, the front surface of the mirror segment (10) is placed in compression while the rear surface is placed in tension. Thereafter, a gel coat (21) is applied to the rear surface of the mirror; when the gel coat has cured, it maintains the shape of the mirror facets that was originally induced by the application of vacuum pressure in the vacuum mold (30) (see, e.g., column 2, lines 66-68 through column 3, line 1). Accordingly, the gel coat (21) does not apply a compressive force to the rear surface of the Chenault mirror. As such, the gel coat (21) maintains the rear surface of the mirror segment (10) in a state of tension, contrary to Applicants' teachings.

In contrast, independent Claim 1 has been amended to now recite:

securing a rigid interlayer to the rear surface of the glass member such that the **rigid interlayer applies a compressive force to the rear surface of the glass member**. (emphasis added)

In view of the above discussion, Applicants respectfully assert that Claim 1 is not taught or suggested by Chenault. In this regard, Applicant submits that Chenault does not teach or suggest securing a rigid interlayer to the glass member such that the rigid interlayer applies a compressive force to the rear surface of the glass member. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of Claim 1 under 35 U.S.C. §102(b).

Applicant notes that independent Claim 11 recites:

providing a mirror having a front surface that is associated with light reflection and a rear surface;

applying a resin to the rear surface of the mirror; and

curing the resin;

said **resin shrinking as it cures and applying a compressive force to the rear surface**. (emphasis added)

As discussed previously, Applicants respectfully submit that Chenault does not teach or suggest applying a resin where the resin shrinks as it cures to apply a compressive force to the rear surface. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claim 11 under 35 U.S.C. §102(b).

As Claims 6-8, 10, 12-14, and 16 depend, directly or indirectly, from either independent Claims 1 and 11, Applicants respectfully submit that these claims are also patentable and in condition for allowance. Therefore, reconsideration and withdrawal of this rejection are respectfully requested regarding independent Claims 1 and 11 and dependent Claims 6-8, 10, 12-14, and 16.

REJECTION UNDER 35 U.S.C. § 103

Claims 2, 3 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chenault in view of Anderson et al. (U.S. Pat. No. 4,468,849; hereinafter "Anderson"). This rejection is respectfully traversed.

As Claims 2, 3 and 15 depend directly or indirectly from independent Claims 1 and 11, Applicants respectfully refer the Examiner to the remarks above regarding Chenault. Furthermore, Applicants note Anderson does not remedy the shortcomings of Chenault.

With regard to Anderson, Anderson appears to disclose a mirror support structure (37) for use with either a mirror (35) or a highly reflective mirror (47a). The method of manufacturing mirror (35) is not disclosed whatsoever. However, with regard to mirror (47a), Anderson discloses that this mirror is manufactured through a lamination process (see, e.g., column 6, lines 25-36). Anderson does not disclose whatsoever

applying a resin to the back of a mirror that shrinks as it cures to place the mirror in compression. Anderson further discloses bonding the support structure to the laminate mirror itself (see, e.g., column 5, lines 34-38) and not to a rigid interlayer secured to the glass member, as claimed in Applicants' invention. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claims 2, 3 and 15 under 35 U.S.C. § 103(a).

Claims 4, 5, 9 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chenault and Anderson as applied to Claim 3 above, and further in view of Fleischer (U.S. Pat. No. 3,985,429; hereinafter "Fleischer"). This rejection is respectfully traversed.

With regard to Claims 4, 5, 9 and 17, Applicants note these claims depend directly or indirectly from Claims 1 and 11, thus, should be in condition for allowance for the reasons set forth for Claims 1 and 11 above. In addition, Applicants refer the Examiner to the remarks regarding Chenault and Anderson above, and note that Fleischer does not remedy the shortcomings of either Chenault or Anderson.

With regard to Fleischer, Fleischer appears to disclose a reinforcing sheet (24) over which a PVC plastisol is heated and cured to form a flexible, resilient layer of PVC (see, e.g., column 3, lines 46-61 and column 4, lines 2-7). Fleischer's "strengthened, shatter-resistant safety mirror 10," therefore, appears to utilize the reinforcing sheet and PVC plastisol to mechanically stiffen the mirror, rather than to drive the mirror (or portions thereof) into a state of compression as claimed in Applicants' Claims 1 and 11.

Therefore, reconsideration and withdrawal of this rejection are respectfully requested regarding dependent Claims 4, 5, 9, and 17 under 35 U.S.C. § 103(a).

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chenault in view of Stang (U.S. Pat. No. 4,124,277; hereinafter "Stang"). This rejection is respectfully traversed.

With regard to Claim 18, Applicants respectfully submit that Claim 18 depends directly from independent Claim 11, and Applicants respectfully refer the Examiner to the remarks above regarding Chenault. Furthermore, Stang does not remedy the shortcomings of Chenault.

With reference to Stang, Stang appears to disclose a method for forming a mirror facet that employs two mold members (32, 34) to form a facet assembly that includes a mirror (12), a first sheet of glass cloth (16) impregnated with epoxy resin, a core (18) formed of paper honeycomb and another sheet of epoxy resin impregnated glass cloth (16). As noted in column 4, lines 19-30, the mold members are employed to deform the facet assembly such that the multi-layer panel is held in compression between the surfaces of the molds. The mirror is mechanically deformed into a smoothly curved configuration under bending stress within its elastic limit. The mold members are held closed until the epoxy resin has cured to its rigid state and has bonded the holding layer (i.e., consisting of sheets 16 and paper honeycomb 18) to the facing sheet (i.e., the mirror 12). Accordingly, the curing of the epoxy resin does not appear to apply a compressive force to the rear surface of the Stang mirror facet so that the rear surface

of the mirror is maintained in a state of tension, rather than compression, in contrast to Applicants' claimed teachings.

In view of the above discussion, Applicants submit that the Examiner has not presented a prima facie case of obviousness. As Claim 18 depends directly from independent Claim 11, Applicants respectfully submit that Claim 18 is also patentable and in condition for allowance. Therefore, reconsideration and withdrawal of the rejection to Claim 18 under 35 U.S.C. § 103(a) are respectfully requested.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chenault in view of Fleischer and Stang. This rejection is respectfully traversed.

At the outset, Applicants note that independent Claim 19 recites:

curing the resin such that the resin, the reinforcing member and the support structure cooperate to form a rigid interlayer that supports the glass member and facilitates mounting of the mirror assembly,

said resin shrinking as it cures and applying a compressive force to the surface of the glass member opposite the light reflecting surface, the compressive force having a magnitude such that the entire cross-sectional thickness of the glass member is maintained in a state of compression. (emphasis added)

Applicants respectfully refer the Examiner to the remarks above regarding Chenault, Fleischer and Stang. As discussed previously, neither Chenault, Fleischer nor Stang, either alone or in combination, teach or suggest whatsoever curing a resin to apply a compressive force to the surface of the glass member opposite the reflective surfaced as claimed. Specifically, Applicant submits that none of the references of record teach or suggest a glass member having a rear surface that is placed in compression in this


manner. Accordingly, for at least these reasons, Applicants submit that the Examiner has not presented a prima facie case of obviousness. Therefore, reconsideration and withdrawal of the rejection to Claim 19 under 35 U.S.C. § 103(a) are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: 22-FEB-2006

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